UNITED STATES PATENT AND TRADEMARK OFFICE

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10/589,974	08/18/2006	Kazuhito Niwano	295156US2PCT	2197

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EXAMINER
LEBASSI, AMANUEL

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application No.	Applicant(s)	
Office Action Summary		10/589,974	NIWANO, KAZUHITO	
		Examiner	Art Unit	
		AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>16 February 2010</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-14</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-14</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>18 August 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☒ All   b) ☐ Some * c) ☐ None of:

   1. ☒ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claim 1-14 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1- 14are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hwang et al. US 6414943 in view of Rydnell et al. US 6519469.

        Regarding claim 1, Hwang discloses a mobile station (**col. 3, lines 51-52 -**

a mobile station). Hwang discloses a transmit buffer for storing data about a

plurality of communication services on a communication-service-by-

communication-service basis or on a transmit-channel-by- transmit-channel (**col.**

3, lines 51-52 – where the <u>mobile station</u> 1 includes a <u>transmit buffer</u> 1b for

temporarily storing transmit data according to the requested radio data

service). Hwang discloses an amount-of-data information determining means

for examining the data which are stored in said transmit buffer on a

communication-service-by-communication-service basis or on a transmit-

channel-by-transmit-channel so as to determine communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information (**col. 3, lines 51-58 where the transmit buffer is examined**) and a

transmitting means for transmitting the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information determined by said amount-of-data information determining means to

a base station **(see Fig. 1 and col. 3, lines 52-58 where a transmitter**

transmits the amount-of-data to the radio service (Base Station)).

Hwang is silent on disclosing means for monitoring the data which are

stored in said transmit buffer. However, Rydnell teaches monitoring the data

which are stored in said transmit buffer (**col. 5, lines 57 – col. 6, line2 where**

the downlink data is monitored).

Therefore it would have been obvious to one of ordinary skill in the art at

the time of invention to modify the inventions of Hwang and add that of Rydnell.

The motivation would be to allow the mobile telephone to quickly establish an

uplink and downlink Medium Access Control transaction **(col. 1, lines 11-15).**

Regarding claim 2, Hwang discloses wherein said amount-of-data

information determining means converts the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information into a binary digit number, and outputs the amount-of-data

information indicating the binary digit number to the transmitting means (see Fig.

1, where the data is digitally transmitted therefore binary).

Regarding claim 3, Hwang discloses wherein said amount-of-data

information determining means converts the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information into a data occupation ratio of the transmit buffer, and outputs the

amount-of-data information indicating the data occupation ratio to the transmitting

means.

Regarding claim 4, Hwang discloses wherein said amount-of-data

information determining means converts the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information into a time, and outputs the amount-of-data information indicating the

time to the transmitting means (**col. 4, lines 46-col. 5, lines 6**).

Regarding claim 5, Hwang discloses wherein said amount-of-data

information determining means converts the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information into a transmission rate, and outputs the amount-of-data information

indicating the transmission rate to the transmitting means (**col. 1, lines 51-56**).

Regarding claim 6, Hwang discloses wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a number of bits per second or a number of bits per unit time **(col. 1, lines 51-56 – data rate i.e. bits per second)**.

Regarding claim 7, Hwang discloses wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a channel amplitude coefficient or a channel amplitude coefficient ratio, and outputs the amount-of-data information indicating the channel amplitude coefficient or the channel amplitude coefficient ratio to the transmitting means (col. 4, lines 25-37).

Regarding claim 8, Hwang discloses wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a power dimension or a power dimension ratio, and outputs the

amount-of-data information indicating the power dimension or the power

dimension ratio to the transmitting means (abstract).

Regarding claim 9, the combination of above discloses wherein said

amount-of-data information determining means outputs an index indicating a

combination of pieces of communication-service-by-communication-service or

transmit- channel-by-transmit-channel amount-of-data information to the

transmitting means, instead of the communication-service-by-communication-

service or transmit-channel-by-transmit- channel amount-of-data information (see

above).

Regarding claim 10, Hwang discloses a base station comprising a

receiving means for receiving communication-service-by-communication-service

or transmit-channel-by-transmit-channel amount-of-data information from a

mobile station (**Fig. 1 and col. 3, lines 59-65 - where the network / BTS

receives a transmit data**). Hwang discloses an assignment examining means

for examining assignment of radio resources for data on a communication-

service-by-communication-service or transmit-channel-by- transmit-channel basis

according to the communication-service-by-communication-service or transmit-

channel-by-transmit-channel amount-of-data information received by said

receiving means (**col. 3, lines 59-65 where the transmit buffer is examined**)
and a notifying means for notifying transmission control information indicating the
assignment of radio resources determined by said assignment determining
means to said mobile station (**Fig. 1 and lines 45-65**).

Hwang is silent on disclosing determining assignment of radio resources
for data. However, Rydnell teaches determining assignment of radio resources
(**col. 5, lines 24-33 and claim 4, where the said resource assigns at least
one time slot**).

Therefore it would have been obvious to one of ordinary skill in the art at
the time of invention to modify the inventions of Hwang and add that of Rydnell.
The motivation would be to allow the mobile telephone to quickly establish an
uplink and downlink Medium Access Control transaction (**col. 1, lines 11-15**).

Regarding claim 11, Hwang discloses a communication system provided
with a base station which notifies transmission control information indicating a
data transmission timing, and a mobile station which transmits data to said base
station according to the transmission control information notified from said base
station (**col. 4 lines 24-31 where the <u>mobile station</u> 1 sends the data
corresponding to the radio packet data service or control signals,
temporarily stored in the <u>transmit buffer</u> 1b, to the network 2 with the plural
radio bearers at the data rate**). Hwang discloses the said mobile station

comprising includes: a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel (**col. 3, lines 51-52 – where the <u>mobile station</u> 1 includes a <u>transmit buffer</u> 1b for temporarily storing transmit data according to the requested radio data service**). Hwang discloses an amount-of-data information determining means for examining the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis so as to determine communication-service- by-communication-service or transmit-channel-by-transmit-channel amount-of-data information (**col. 3, lines 51-58 where the transmit buffer is examined**) and a transmitting means for transmitting the communication-service-by- communication-service or transmit-channel-by-transmit-channel amount-of-data information determined by said amount-of-data information determining means to said base station (**Fig. 1, a transmitting means that transmits and col. 4, lines 24-32 where the transmitter transmits to the network 2 the data corresponding to the radio packet data service or control signals**). Hwang discloses where the said base station comprising : a scheduler for assigning resources used for carrying out data transmission to said mobile station on a communication-service-by-communication-service basis or on a transmit- channel-by-transmit-channel basis according to the amount-of-data information received from said mobile station (**col. 4, lines 38-62).**

Hwang is silent on disclosing means for monitoring the data which are stored in said transmit buffer. However, Rydnell teaches monitoring the data which are stored in said transmit buffer **(col. 5, lines 57 – col. 6, line 2 where the downlink data is monitored).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Hwang and add that of Rydnell. The motivation would be to allow the mobile telephone to quickly establish an uplink and downlink Medium Access Control transaction **(col. 1, lines 11-15).**

Regarding claim 12, Hwang discloses an amount-of-data information transmission method (abstract- **method and apparatus for controlling asymmetric dynamic radio bearers in a mobile packet data communications system**). Hwang discloses examining data which are transmitted from a terminal on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis **(col. 3, lines 51-58 where the transmit buffer is examined).** Hwang discloses determining amount-of-data information indicating an amount of data on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis **(col. 5, lines 56-63 where the amounts of data stored in the <u>transmit buffers is determined)</u>** and transmitting the amount-of-data

information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis to a base station **(see Fig. 1 and col. 3, lines 52-58 where a transmitter transmits the amount-of-data to the radio service (Base Station)).**

Hwang is silent on disclosing monitoring the data which are transmitted. However, Rydnell teaches monitoring the data which are transmitted **(col. 5, lines 57 – col. 6, line2 where the downlink data is monitored).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Hwang and add that of Rydnell. The motivation would be to allow the mobile telephone to quickly establish an uplink and downlink Medium Access Control transaction **(col. 1, lines 11-15).**

Regarding claim 14, Hwang discloses a wireless communication method **(see abstract, mobile packet data communications system).** Hwang discloses when data about a plurality of communication services are stored in transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis, examining the data which are stored in the transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis **(col. 3, lines 51-58 where the transmit buffer is examined)**. Hwang discloses determining

amount-of-data information indicating an amount of data on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis **(col. 5, lines56-64 the amounts of data stored in the transmit buffers is determined).** Hwang discloses transmitting the amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis to a base station **(see Fig. 1 and col. 3, lines 52-58 where a transmitter transmits the amount-of-data to the radio service (Base Station)).** Hwang discloses when the base station receives the amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis from a mobile station, determining a data transmission timing on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis according to the amount-of-data information **col. 4, lines 24-31 where the base station receives amount-of-data information and col. 4, lines 38-56 where the data transmission timing is determined).** Hwang discloses notifying transmission control information indicating the data transmission timing to said mobile station **(col. 1, lines 49-52 where the network informs the mobile station of the data) and** said mobile station transmitting the data to said base station on a communication- service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis according to the transmission control information notified from said base station **(col. 3, lines 52-58 where a**

transmitter transmits the amount-of-data to the radio service (Base

Station)).

Hwang is silent on disclosing means for monitoring the data which are

stored in said transmit buffer. However, Rydnell teaches monitoring the data

which are stored in said transmit buffer **(col. 5, lines 57 – col. 6, line2 where**

the downlink data is monitored).

Therefore it would have been obvious to one of ordinary skill in the art at

the time of invention to modify the inventions of Hwang and add that of Rydnell.

The motivation would be to allow the mobile telephone to quickly establish an

uplink and downlink Medium Access Control transaction **(col. 1, lines 11-15).**

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in
public use or on sale in this country, more than one year prior to the date of application for patent in
the United States.

5.   Claim 13 is rejected under 35 U.S.C. 102(b) as being unpatentable by Hwang et

a. US 6414943.

Regarding claim 13, Hwang discloses a transmission-control-information notification method (**col. 4 lines 24-31 where the** <u>**mobile station**</u> **1 sends the data corresponding to the radio packet data service or control signals**). Hwang discloses when a base station receives amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis from a mobile station, determining a data transmission timing on a communication-service-by-communication-service basis or on a transmit-channel-by- transmit-channel basis according to the amount-of-data information (**col. 4, lines 24-31 where the base station receives amount-of-data information and col. 4, lines 38-56 where the data transmission timing is determined**) and notifying transmission control information indicating the data transmission timing to said mobile station (**col. 1, lines 49-52 where the network informs the mobile station of the data**).

Conclusion

1.   Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-

8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

Amanuel Lebassi
    /A. L./
   05132010

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617